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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Jun Koyama

SEL 209

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05/29/2009

COOK ALEX LTD

SUITE 2850

200 WEST ADAMS STREET

CHICAGO, IL 60606

EXAMINER

NGUYEN, KIMNHUNG T

ART UNIT

PAPER NUMBER

2629

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/666,521	<b>Applicant(s)</b> KOYAMA, JUN	
	<b>Examiner</b> KIMNHUNG NGUYEN	<b>Art Unit</b> 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 7-12, 16-22, 26-31, 35 and 36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7-12, 16-22, 26-31, 35 and 36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. This application has been examined. The claim 1-3, 7-12, 16-22, 26-31, 35-36 are pending. The examination results are as following.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 9-12, 18-22, 28-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (US 5,990,629) in view of Shioya et al. (US 6,091,382) and Von Stein et al. (US 6,529,243) further in view of Shanks et al. (US 5,747,928) and further in view of Kawashima et al. (US 5,721,562).

Regarding claims 1, 9, 19 and 28, Yamada et al. discloses in figs. 1, 5, an electronic device comprising an EL display device (11) including a thin film transistor (12); an EL element (11) with the pixel electrode as a cathode (11a, see col. 18, lines 66-67 and col. 19, lines 1-3); and an insulating layer (14) is formed on the driver transistor 12 and the selection transistor 13(see col. 7, lines 57-66), an applying means (image signal memory section 2e, corresponds to the light emission signal output section 2f determines whether or not organic EL element 11 of the pixels should be illuminated for every light sub-frame with the image signals Sp stored in the image signal memory section 2e... to the drain driver 4, see col. 11, lines 24-35) for applying an image signal to the EL element; and a correcting means for gamma correcting (2c, fig. 5) the

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image signal; and wherein the thin film transistor, the pixel electrode, the EL element, the insulating layer, the applying means and the correcting means are formed over a same substrate.

Yamada et al. does not specifically disclose an insulating layer over the EL element, and the insulating layer comprising a silicon nitride film and a carbon film; and wherein the correcting means is configured to amplify a signal of red and attenuate a signal of blue or green, and wherein the EL element comprises: a first pixel comprising a blue luminescent layer, a second pixel comprising a green luminescent layer, and a third pixel comprising a red luminescent layer.

However, Shioya et al. discloses in figs. 21, 22, a display device 226 comprises an insulating layer (see transparent insulating film (227)) formed on an EL display element for the display light (see fig. 22, see transparent insulating 227 formed on the third and fourth organic layers 222,223 uniformly contains a luminescent material; for emitting white light, see col. 18, lines 36-50).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the insulating film formed on the EL display element as taught by Shioya into the EL display of electronic device of Yamada et al. for producing the claimed invention because this would provide the light generated near the interface between the fourth organic layer and third organic layer, and allow injection of electrons into the third organic layer, and allow the white light traveling toward the color filter (see col. 18, lines 48-56).

Yamada et al. and Shioya do not disclose wherein the correcting means is configured to amplify a signal of red and attenuate a signal of blue or green.

Von Stein et al. disclose a video image signal comprising the correcting means is configured to amplify a signal of red and attenuate a signal of blue or green (see col. 4, lines 16-22 and lines 41-45).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the correcting means is configured to amplify a signal of red and attenuate a signal of blue or green as taught by Von Stein et al. into the system of Yamada et al. and Shioya for producing the claimed invention because this would provide the corrected signals are obtained which are further processed in a known manner and are present at the output of the RGB signals (col. 4, lines 21-23).

Yamada et al., Shioya et al., and Von Stein et al. do not disclose the EL element comprises: a first pixel comprising a blue luminescent layer, a second pixel comprising a green luminescent layer, and a third pixel comprising a red luminescent layer.

Shanks et al. disclose in fig. 4, an EL display comprising: a first pixel comprising a blue luminescent layer, a second pixel comprising a green luminescent layer, and a third pixel comprising a red luminescent layer (see each pixel will be made up of a red pixel component, blue component and green component (see col. 6, lines 4-9)).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the a first pixel comprising a blue luminescent layer, a second pixel comprising a green luminescent layer, and a third pixel comprising a red luminescent layer as taught by Shanks et al. into the system of Yamada et al., Shioya et al., and Von Stein et al for producing the claimed invention because this would provide for each of the colors in the triad (see Shanks, see col. 6, line 10).

Yamada et al., Shioya et al., Von Stein et al. and Shanks et al. do not specifically disclose the insulating layer comprising a silicon nitride film and a carbon film.

Kawashima et al. disclose in fig. 1, an organic EL display having an insulating film 3 and 5, comprising a silicon nitride film and should have an obvious of a carbon film (see col. 3, lines 3-6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement an insulating film 3 and 5, comprising a silicon nitride film as taught by Kawashima et al. into the electronic device of Yamada et al., Shioya et al., Von Stein et al. and Shanks et al. for producing the claimed invention because this would provide the long-term reliability of the device is improved (see Kawashima et al., see col. 4, lines 10-13).

Regarding claims 2, 10, 20, 29, Yamada et al. discloses further comprising a memory for storing data for the gamma-correcting (see table memory section 2d, and 2e, see col. 10, lines 43-46, and 66-67 and col. 11, lines 1-3).

Regarding claims 3, 12, 22 and 31, Yamada et al. discloses a color filter being formed at position corresponding to the pixel electrode (see col. 22, lines 15-23).

Regarding claims 11, 18, 21 and 30, Yamada et al. discloses the EL display device is used in an electronic device selected form the group consisting of an EL display.

4. Claims 7, 16, 26 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (US 5,990,629) and Shioya et al. (US 6,091,382) and Von Stein et al. (US 6,529,243) and Shanks et al. (US 5,747,928) and in view of Kawashima et al. (US 5,721,562) and further in view of Yamazaki et al. (US 6,388,652).

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Regarding claims 7, 16, 26 and 35, Yamada et al. and Ishioya et al., Von Stein et al. Shanks et al. and Kawashima et al. do not specifically disclose the gamma-correcting is independently applied for each of signals of blue, green and red. Yamazaki et al. discloses the gamma-correcting is independently applied for each of signals of blue, green and red (see figure 14). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement the teachings of using gamma-correcting is independently applied for each of signals of blue, green and red as taught by Yamazaki et al. into the system of Yamada et al., Ishioya et al., Von Stein et al., Shanks et al. and Kawashima et al. for producing the claimed invention because this would provide an improving the EL display having correction values for driving conditions of individual surface of the electron beam, by applying correction independently.

5. Claims 8, 17, 27 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (US 5,990,629) and Shioya et al. (US 6, 091,382), Von Stein et al. (US 6,529,243) Shanks et al. (US 5,747,928) and further in view of Kawashima et al. (US 5,721,562) as applied to claims 1,9,19 and 28, in view of Yamazaki et al. (US 6,388,652 cited by Applicant), and further in view of Nagayama et al. (US 6,285,124).

Yamada et al., Shioya et al. Von Stein et al, Shanks et al., Kawashima et al., and Yamazaki (6,388,652) disclose every feature of the claimed invention as discussed above; however; they do not disclose the EL element comprises a luminescent layer comprising a polymer organic material.

Nagayama et al. disclose in fig. 1, an organic EL display comprising a polymer organic material (see organic EL element, includes an organic EL layer 3 having a conductive high polymer layer 4, see col. 3, lines 63-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement an organic EL layer comprising a polymer organic material as taught by Nagayama et al. into the device system of Yamada et al., Shioya et al., Von Stein et al., Shanks et al., Kawashima et al. and Yamazaki et al. for producing the claimed invention because this would provide the reducing the conductivity of gap regions corresponding to the intervals of the conductive high polymer layer; and successively stacking an organic EL layer and a cathode layer on the conductive high polymer layer (see Nagayama et al., see col. 3, lines 2-5).

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1-3, 7-12, 16-22, 26-31, 35-36 filed 3/31/09 have been considered but are moot in view of the new ground(s) of rejection.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KIMNHUNG NGUYEN whose telephone number is (571)272-7698. The examiner can normally be reached on MON-FRI, FROM 8:30 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Kimmhung Nguyen/

Examiner, Art Unit 2629